

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original) A method for developing a latent image formed on an image carrier with a developing liquid, said developing method comprising:

storing the developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section onto a developer carrier; and

sensing a liquid level in said liquid storing section using a float type liquid level sensor,

said float type liquid level sensor comprising:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member; and

spherical floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

Claim 2 (Currently Amended) The ~~device~~ method as claimed in claim 1, wherein said magnetic force generating member is movable up and down relative to said magnetic force sensing means together with said floats.

Claim 3 (Original) The method as claimed in claim 2, wherein said magnetic force sensing means comprises a plurality of magnetic force sensing means arranged in parallel in the up-and-down direction.

Claim 4 (Original) The method as claimed in claim 3, wherein said floats are formed of foam resin.

Claim 5 (Original) The method as claimed in claim 4, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said liquid storing section for agitating the developing liquid.

Claim 6 (Original) The method as claimed in claim 5, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

Claim 7 (Currently Amended) The ~~device~~ method as claimed in claim 6, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

Claim 8 (Original) The method as claimed in claim 7, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a

direction in which the axis is offset from the center.

Claim 9 (Original) The method as claimed in claim 1, wherein said floats include foam resin.

Claim 10 (Original) The method as claimed in claim 9, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said liquid storing section for agitating the developing liquid.

Claim 11 (Original) The method as claimed in claim 10, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

Claim 12 (Currently Amended) The ~~device~~ method as claimed in claim 11, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

Claim 13 (Original) The method as claimed in claim 12, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

Claim 14 (Original) The method as claimed in claim 1, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said liquid storing section for agitating the developing liquid.

Claim 15 (Original) The method as claimed in claim 14, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

Claim 16 (Original) The method as claimed in claim 15, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

Claim 17 (Original) The method as claimed in claim 16, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

Claim 18 (Original) An image forming method comprising:
forming a latent image on an image carrier;
forming the latent image on said image carrier using image forming means; and
depositing a developing substance contained in a developing liquid on the latent image using a developing device to thereby develop said latent image;

said developing device comprising:

a liquid storing section for storing the developing liquid consisting of the developing substance and a carrier liquid;

a developer carrier for depositing the developing liquid fed from said liquid storing section thereon; and

a float type liquid level sensor for sensing a liquid level in said liquid storing section;

said float type liquid level sensor comprising:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member; and

spherical floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

Claim 19 (Original) The method as claimed in claim 18, further comprising:

sensing a content of the developing substance of the developing liquid stored in said liquid storing section using a content sensing means;

collecting the developing liquid used for development and returning said developing liquid to said liquid storing section using a collecting means;

replenishing a control agent for controlling the content of the developing substance of the developing liquid to said liquid storing section using a replenishing means; and

controllably driving said means in accordance with an output of said content sensing means and an output of said liquid level sensor to thereby control the content of the

developing substance using a controlling means.

Claim 20 (Original) The method as claimed in claim 19, wherein whether or not the control agent is present in said replenishing means is determined on the basis of the output of said liquid level sensor and a duration of drive of said replenishing means.

Claim 21 (Original) The method as claimed in claim 20, wherein the developing liquid contains the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

Claim 22 (Original) A method for developing a latent image formed on an image carrier with a developing liquid, said method comprising:

storing the developing liquid a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section onto a developer carrier; and

sensing a liquid level in said liquid storing section using a float type liquid level sensor;

said float type liquid level sensor comprising:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof,

supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said means for sensing.

Claim 23 (Original) The method as claimed in claim 22, wherein said magnetic force generating member is movable up and down relative to said magnetic force sensing means together with said floats.

Claim 24 (Original) The method as claimed in claim 23, wherein said magnetic force sensing means comprises a plurality of sensing means arranged in parallel in the up-and-down direction.

Claim 25 (Original) The method as claimed in claim 24, wherein said floats are formed of foam resin.

Claim 26 (Currently Amended) The ~~device~~ method as claimed in claim 25, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said agent storing section for agitating the developing liquid.

Claim 27 (Currently Amended) The ~~device~~ method as claimed in claim 26, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

Claim 28 (Original) The method as claimed in claim 27, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

Claim 29 (Original) The method as claimed in claim 28, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

Claim 30 (Original) The method as claimed in claim 22, wherein said floats are formed of foam resin.

Claim 31 (Original) The method as claimed in claim 30, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said liquid storing section for agitating the developing liquid.

Claim 32 (Original) The method as claimed in claim 31, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow in along said axis.

Claim 33 (Original) The method as claimed in claim 32, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

Claim 34 (Original) The method as claimed in claim 33, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

Claim 35 (Original) The method as claimed in claim 22, further comprising agitating means disposed in said liquid storing section and rotatable about an axis offset from a center of a cross-section of said liquid storing section for agitating the developing liquid.

Claim 36 (Original) The method as claimed in claim 35, wherein said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

Claim 37 (Original) The method as claimed in claim 36, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

Claim 38 (Original) The method as claimed in claim 37, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

Claim 39 (Original) An image forming method comprising:
forming a latent image on an image carrier;
forming the latent image on said image carrier using an image forming means; and
depositing a developing substance contained in a developing liquid on the latent image to thereby develop said latent image;
said developing comprising:
storing the developing liquid consisting of the developing substance and a carrier liquid in a liquid storing section;
depositing the developing liquid fed from said liquid storing section onto a developer carrier; and
sensing a liquid level in said liquid storing section using a float type liquid level sensor;
said float type liquid level sensor comprising:
a magnetic force generating member;
magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section; and

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said means for sensing at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said means for sensing varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said means for sensing.

Claim 40 (Original) The method as claimed in claim 39, further comprising:

sensing a content of the developing substance of the developing liquid stored in said liquid storing section using content sensing means;

collecting the developing liquid used for development and returning said developing liquid to said liquid storing section using a collecting means;

replenishing a control agent for controlling the content of the developing substance of the developing liquid to said liquid storing section using replenishing means; and

controllably driving said replenishing means in accordance with an output of said content sensing means and an output of said liquid level sensor to thereby control the content of the developing substance using a means for controlling.

Claim 41 (Original) The method as claimed in claim 40, wherein whether or not the control agent is present in said replenishing means is determined on the basis of the output of

said liquid level sensor and a duration of drive of said replenishing means.

Claim 42 (Original) The method as claimed in claim 41, wherein the developing liquid contains the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

Claim 43 (Currently Amended) A method for developing a latent image formed on an image carrier with a developing liquid, said method comprising:

storing the developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section onto a developer carrier; and

causing the developing liquid to swirl in a horizontal direction ~~to thereby agitate said developing liquid~~ using ~~an agitating means~~ for agitating said developing liquid rotatable in said liquid storing section,

wherein said ~~agitating means~~ for agitating rotates about an axis offset from a center of a cross-section of said liquid storing section and includes means for exerting a first agitating force and means for exerting a second agitating force, the first agitating force including a magnitude greater than the second agitating force.

Claim 44 (Currently Amended) ~~The method as claimed in claim 43~~ A method for developing a latent image formed on an image carrier with a developing liquid, said method comprising:

storing the developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section onto a developer carrier; and

causing the developing liquid to swirl in a horizontal direction to thereby agitate said developing liquid using an agitating means rotatable in said liquid storing section,

wherein said agitating means rotates about an axis offset from a center of a cross-section of said liquid storing section, wherein and said agitating means comprises:

a flexible paddle rotatable in contact with an inner periphery of said liquid storing section while deforming itself; and

a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for causing the developing liquid to flow along said axis.

Claim 45 (Original) The method as claimed in claim 44, wherein said non-flexible paddle causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation.

Claim 46 (Original) The method as claimed in claim 45, wherein said liquid storing section is formed with a taper at a bottom corner such that said taper guides the developing liquid flown downward and rebounded from the bottom upward in a direction opposite to a direction in which the axis is offset from the center.

Claim 47 (Original) The method as claimed in claim 46, further comprising:
collecting the developing liquid used for development from said developer carrier and causing said developing liquid collected to drop to a liquid surface in said liquid storing section at a position closer to the axis than to the center using collecting means;
sensing a content of the developing substance of the developing liquid guided upward

by said taper using a content sensing means; and

causing a content agent to drop to the liquid surface in accordance with an output of said content sensing means to thereby control a content of the developing substance of the developing liquid stored in said liquid storing section.

Claim 48 (Currently Amended) An image forming method comprising:
forming a latent image on an image carrier;
forming the latent image on said image carrier using image forming means; and
depositing a developing substance contained in a developing liquid on the latent image to thereby develop said latent image using a developing device;
said developing device comprising:
a liquid storing section for storing the developing liquid consisting of the developing substance and a carrier liquid;
a developer carrier for depositing the developing liquid fed from said liquid storing section thereon; and

means for agitating said developing liquid ~~means rotatable in said liquid storing section~~ for causing the developing liquid to swirl in a horizontal direction ~~to thereby agitate said developing liquid,~~

wherein said ~~agitating~~ means for agitating rotates about an axis offset from a center of a cross-section of said liquid storing section, and said means for agitating includes means for exerting a first agitating force and means for exerting a second agitating force, the first agitating force including a magnitude greater than the second agitating force.

Claim 49 (Currently Amended) ~~The method as claimed in claim 48~~ An image forming method comprising:

forming a latent image on an image carrier;
forming the latent image on said image carrier using image forming a means; and
depositing a developing substance contained in a developing liquid on the latent
image to thereby develop said latent image using a developing device;
said developing device comprising:
a liquid storing section for storing the developing liquid consisting of the developing
substance and a carrier liquid;
a developer carrier for depositing the developing liquid fed from said liquid storing
section thereon; and
agitating means rotatable in said liquid storing section for causing the developing
liquid to swirl in a horizontal direction to thereby agitate said developing liquid,
wherein said agitating means rotates about an axis offset from a center of a cross-
section of said liquid storing section, wherein and said agitating means comprises:
a flexible paddle rotatable in contact with an inner periphery of said liquid storing
section while deforming itself; and
a non-flexible paddle rotatable about a same axis of rotation as said flexible paddle for
causing the developing liquid to flow along said axis.

Claim 50 (Original) The method as claimed in claim 49, wherein said non-flexible
paddle causes the developing liquid to flow downward toward a bottom of said liquid storing
section along the axis of rotation.

Claim 51 (Original) The method as claimed in claim 50, wherein said liquid storing
section is formed with a taper at a bottom corner such that said taper guides the developing
liquid flown downward and rebounded from the bottom upward in a direction opposite to a

direction in which the axis is offset from the center.

Claim 52 (Original) The method as claimed in claim 51, further comprising:

collecting means for collecting the developing liquid used for development from said developer carrier and causing said developing liquid collected to drop to a liquid surface in said liquid storing section at a position closer to the axis than to the center;

content sensing means for sensing a content of the developing substance of the developing liquid guided upward by said taper; and

content controlling means for causing a content agent to drop to the liquid surface in accordance with an output of said content sensing means to thereby control a content of the developing substance of the developing liquid stored in said liquid storing section.

Claim 53 (Currently Amended) A method for developing a latent image formed on an image carrier with a developing liquid, said method comprising:

storing the developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section onto a developer carrier; and

causing the developing liquid to swirl in a horizontal direction ~~to thereby agitate said developing liquid~~ using ~~an agitating means~~ for agitating said developing liquid rotatable in said liquid storing section, said ~~agitating means~~ for agitating comprising flexible agitating means including means for exerting a first agitating force and flexible means for exerting a second agitating force, the first agitating force including a magnitude greater than the second agitating force.

Claim 54 (Currently Amended) ~~The method as claimed in claim 53~~ A method for developing a latent image formed on an image carrier with a developing liquid, said method comprising:

storing the developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section onto a developer carrier; and

causing the developing liquid to swirl in a horizontal direction to thereby agitate said developing liquid using an agitating means rotatable in said liquid storing section, said agitating means comprising flexible agitating means, wherein said liquid storing section comprises:

a first liquid storing section for storing the developing liquid to be fed to said developer carrier; and

a second liquid storing section for storing a developing liquid to be fed to said first liquid storing section;

said method further comprising:

collecting the developing liquid used for development from said developer carrier using a collecting means and feeding said developing liquid collected to said second liquid storing section;

sensing a content of the developing substance of the developing liquid stored in said second liquid storing section using content sensing means; and

controlling the content of the developing substance in accordance with an output of said content sensing means using content controlling means,

wherein said flexible agitating means is disposed at least in said second liquid storing section.

Claim 55 (Original) The method as claimed in claim 54, wherein said agitating means further comprises non-flexible agitating means located at a position different from said flexible agitating means.

Claim 56 (Original) The method as claimed in claim 55, wherein said flexible agitating means and said non-flexible agitating means are rotated by a single shaft.

Claim 57 (Original) The method as claimed in claim 56, wherein said non-flexible agitating means causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation while swirling in accordance with the rotation of said non-flexible agitating means.

Claim 58 (Original) The method as claimed in claim 57, wherein said liquid storing section comprises:

a first liquid storing section for storing the developing liquid to be fed to said developer carrier; and

a second liquid storing section for storing a developing liquid to be fed to said first liquid storing section;

said method further comprising:

collecting the developing liquid used for development from said developer carrier using collecting means and feeding said developing liquid collected to said second liquid storing section;

sensing a content of the developing substance of the developing liquid stored in said second liquid storing section using content sensing means; and

controlling the content of the developing substance in accordance with an output of said content sensing means;

wherein said flexible agitating means is disposed at least in said second liquid storing section.

Claim 59 (Currently Amended) An image forming method comprising:
forming a latent image on an image carrier;
forming a latent image on said image carrier using image forming means; and
developing the latent image by depositing a developing substance contained in the developing liquid on said latent image using a developing device;
said developing device comprising:
a liquid storing section for storing the developing liquid consisting of the developing substance and a carrier liquid;
a developer carrier for depositing the developing liquid fed from said liquid storing section thereon; and
means for agitating means said developing liquid, said means for agitating rotatable in said liquid storing section for causing the developing liquid to swirl in a horizontal direction to thereby agitate said developing liquid, said agitating means for agitating comprising flexible agitating means including means for exerting a first agitating force and flexible means for exerting a second agitating force, the first agitating force including a magnitude greater than the second agitating force.

Claim 60 (Currently Amended) ~~The method as claimed in claim 59~~ An image forming method comprising:
forming a latent image on an image carrier;

forming a latent image on said image carrier using image forming means; and
developing the latent image by depositing a developing substance contained in the
developing liquid on said latent image using a developing device;

said developing device comprising:

a liquid storing section for storing the developing liquid consisting of the developing
substance and a carrier liquid;

a developer carrier for depositing the developing liquid fed from said liquid storing
section thereon; and

agitating means rotatable in said liquid storing section for causing the developing
liquid to swirl in a horizontal direction to thereby agitate said developing liquid, said
agitating means comprising flexible agitating means, wherein said liquid storing section
comprises:

a first liquid storing section for storing the developing liquid to be fed to said
developer carrier; and

a second liquid storing section for storing a developing liquid to be fed to said first
liquid storing section;

said method further comprising:

collecting the developing liquid used for development from said developer carrier
using collecting means and feeding said developing liquid collected to said second liquid
storing section;

sensing a content of the developing substance of the developing liquid stored in said
second liquid storing section using content sensing means; and

controlling the content of the developing substance in accordance with an output of
said content sensing means using content controlling means,

wherein said flexible agitating means is disposed at least in said second liquid storing

section.

Claim 61 (Original) The method as claimed in claim 60, wherein said agitating means further comprises non-flexible agitating means located at a position different from said flexible agitating means.

Claim 62 (Original) The method as claimed in claim 61, wherein said flexible agitating means and said non-flexible agitating means are rotated by a single shaft.

Claim 63 (Original) The method as claimed in claim 62, wherein said non-flexible agitating means causes the developing liquid to flow downward toward a bottom of said liquid storing section along the axis of rotation while swirling in accordance with the rotation of said non-flexible agitating means.

Claim 64 (Original) The method as claimed in claim 63, wherein said liquid storing section comprises:

a first liquid storing section for storing the developing liquid to be fed to said developer carrier; and

a second liquid storing section for storing a developing liquid to be fed to said first liquid storing section;

said method comprising:

collecting the developing liquid used for development from said developer carrier using collecting means and feeding said developing liquid collected to said second liquid storing section;

sensing a content of the developing substance of the developing liquid stored in said

second liquid storing section using content sensing means; and

controlling the content of the developing substance in accordance with an output of said content sensing means using content controlling means,

wherein said flexible agitating means is disposed at least in said second liquid storing section.

Claim 65 (Currently Amended) A method for developing a latent image formed on an image carrier with a developing liquid said method comprising:

storing the developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section on a developer carrier; and

causing the developing liquid to swirl along an inner periphery of said liquid storing section ~~to thereby agitate said developing liquid~~ using ~~agitating means~~ for agitating said developing liquid rotatable in said liquid storing section, said ~~agitating means~~ for agitating generating a flow of said developing liquid along an axis of rotation of said ~~agitating means~~ for agitating, said means for agitating including means for exerting a first agitating force and flexible means for exerting a second agitating force, the first agitating force including a magnitude greater than the second agitating force.

Claim 66 (Original) The method as claimed in claim 65, wherein the flow of the developing liquid extends toward a bottom of said liquid storing section.

Claim 67 (Currently Amended) ~~The method as claimed in claim 66~~ A method for developing a latent image formed on an image carrier with a developing liquid said method

comprising:

storing the developing liquid consisting of a developing substance and a carrier liquid
in a liquid storing section;

depositing the developing liquid fed from said liquid storing section on a developer
carrier; and

causing the developing liquid to swirl along an inner periphery of said liquid storing
section to thereby agitate said developing liquid using agitating means rotatable in said liquid
storing section, said agitating means generating a flow of said developing liquid along an axis
of rotation of said agitating means, wherein the flow of the developing liquid extends toward
a bottom of said liquid storing section, wherein and said agitating means comprises a
plurality of blades radially extending from a shaft and positioned one above the other in an
axial direction of said shaft, said plurality of blades facing each other at a preselected distance
while being inclined relative to said axial direction each.

Claim 68 (Original) The method as claimed in claim 67, wherein upper blades
included in said blades each have a rear portion in a direction of rotation that is inclined more
sharply than a front portion in such a manner as to approach a lower blade more than said
front portion.

Claim 69 (Original) The method as claimed in claim 68, wherein said upper blade
and said lower blade facing each other are shifted from each other such that the front portion
and the rear portion of said upper blade are positioned ahead of the front portion and the rear
portion of said lower blade.

Claim 70 (Currently Amended) An image forming method comprising:

forming a latent image on an image carrier;
forming a latent image on said image carrier using image forming means; and
developing the latent image by depositing a developing substance contained in a
developing liquid on said latent image using a developing device;
said developing device comprising:
a liquid storing section for storing the developing liquid consisting of the developing
substance and a carrier liquid;
a developer carrier for depositing the developing liquid fed from said liquid storing
section thereon; and
means for agitating means said developing liquid, said means for agitating rotatable in
said liquid storing section for causing the developing liquid to swirl along an inner periphery
of said liquid storing section ~~to thereby agitate said developing liquid~~, said agitating means
generating a flow of said developing liquid along an axis of rotation of said ~~agitating~~ means
for agitating, and including means for exerting a first agitating force and means for exerting a
second agitating force, the first agitating force including a magnitude greater than the second
agitating force.

Claim 71 (Original) The method as claimed in claim 70, wherein the flow of the
developing liquid extends toward a bottom of said liquid storing section.

Claim 72 (Currently Amended) ~~The method as claimed in claim 71~~ An image
forming method comprising:

forming a latent image on an image carrier;
forming a latent image on said image carrier using image forming means; and
developing the latent image by depositing a developing substance contained in a

developing liquid on said latent image using a developing device;

said developing device comprising:

a liquid storing section for storing the developing liquid consisting of the developing substance and a carrier liquid;

a developer carrier for depositing the developing liquid fed from said liquid storing section thereon; and

agitating means rotatable in said liquid storing section for causing the developing liquid to swirl along an inner periphery of said liquid storing section to thereby agitate said developing liquid, said agitating means generating a flow of said developing liquid along an axis of rotation of said agitating means, wherein the flow of the developing liquid extends toward a bottom of said liquid storing section, wherein and said agitating means comprises a plurality of blades radially extending from a shaft and positioned one above the other in an axial direction of said shaft, said plurality of blades facing each other at a preselected distance while being inclined relative to said axial direction each.

Claim 73 (Original) The method as claimed in claim 72, wherein upper blades included in said blades each have a rear portion in a direction of rotation that is inclined more sharply than a front portion in such a manner as to approach a lower blade more than said front portion.

Claim 74 (Original) The method as claimed in claim 73, wherein said upper blade and said lower blade facing each other are shifted from each other such that the front portion and the rear portion of said upper blade are positioned ahead of the front portion and the rear portion of said lower blade.

Claim 75 (Original) An image forming method comprising:

forming a latent image on an image carrier;

storing a developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section on a developer carrier and causing said developing liquid to deposit on the latent image to thereby develop said latent image;

transferring a developed image from said image carrier to a recording medium using transferring means;

removing the developing liquid left on said image carrier after image transfer using cleaning means;

sensing a content of the developing substance of the developing liquid stored in said liquid storing section using content means;

comparing an output of said content sensing means and a preselected target content and feeding a control agent to said liquid storing section in accordance with a result of comparison to thereby control a content of the developing substance using content controlling means; and

storing the developing liquid removed by said cleaning means in a residual liquid storing section,

wherein the developing liquid stored in said residual liquid storing section is used as the control agent.

Claim 76 (Original) The method as claimed in claim 75, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

Claim 77 (Original) The method as claimed in claim 75, wherein said content sensing means comprises:

- content signal outputting means and content calculating means;
- said content signal outputting means comprising:
 - film forming means for causing the developing liquid in said liquid storing section to form a film having a thickness slope;
 - light emitting means for emitting light toward the film such that said light is transmitted through said film in a direction of thickness;
 - signal outputting means for outputting a signal representative of a quantity of light incident thereto via the film; and
 - shifting means for shifting a position of the film to which the light is incident in a direction of the thickness slope,
- wherein said content calculating means integrates a continuous output of said signal outputting means received over a preselected period of time and calculates, based on a result of integration, a content of the developing substance of the developing liquid stored in said liquid storing section.

Claim 78 (Original) The method as claimed in claim 77, further comprising liquid level sensing means for sensing a liquid level in said liquid storing section, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

Claim 79 (Original) The method as claimed in claim 78, wherein said liquid level sensing means comprises:

a magnetic force generating member;

means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said means for sensing at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said means for sensing varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

Claim 80 (Original) The method as claimed in claim 79, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 o and has viscosity of between 100 mPa·s and 10,000 mPa·s.

Claim 81 (Original) The method as claimed in claim 75, further comprising liquid level sensing means for sensing a liquid level in said liquid storing section, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

Claim 82 (Original) The method as claimed in claim 81, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

Claim 83 (Original) The method as claimed in claim 82, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

Claim 84 (Original) An image forming method comprising:

forming a latent image on an image carrier;

storing a developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;

depositing the developing liquid fed from said liquid storing section on a developer carrier and causing said developing liquid to deposit on the latent image to thereby develop

said latent image;

removing the developing liquid left on said image carrier after development using a first cleaning means;

sensing a content of the developing substance of the developing liquid stored in said liquid storing section using content sensing means;

comparing an output of said content sensing means and a preselected target content and feeding a control agent to said liquid storing section in accordance with a result of comparison to thereby control a content of the developing substance using content controlling means;

calculating image density of a developed image using image density calculating means;

storing the developing liquid removed by said first cleaning means in a first residual liquid storing section;

conveying the developing liquid from said cleaning means to said liquid storing section by bypassing said first residual liquid storing section using bypass conveying means; and

controlling said bypass conveying means in accordance with image density calculated by said image density calculating means using bypass controlling means.

Claim 85 (Original) The method as claimed in claim 84, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

Claim 86 (Original) The method as claimed in claim 84, wherein the developing liquid stored in said first residual liquid storing section is used as a control agent for

controlling the content of the developing substance of the developing liquid stored in said liquid storing section.

Claim 87 (Original) The method as claimed in claim 86, further comprising:
transferring a developed image from said image carrier to an intermediate image transfer body and then from said intermediate image transfer body to a recording medium using transferring means;
removing the developing liquid left on said image carrier after image transfer using second cleaning means;
storing the developing liquid removed by said second cleaning means using a second residual liquid storing section,
wherein a mixture of the developing liquid stored in said first residual liquid storing section and the developing liquid stored in said second residual liquid storing section is used as the control agent.

Claim 88 (Original) The method as claimed in claim 87, wherein a carrier liquid is used as the control agent.

Claim 89 (Original) The method as claimed in claim 88, wherein the developing liquid stored in said second residual liquid storing section is used prior to the carrier liquid.

Claim 90 (Original) The method as claimed in claim 89, wherein a developing liquid whose developing substance has a content higher than a target content is used as the control agent.

Claim 91 (Original) The method as claimed in claim 90, wherein the target content is higher than a standard content, which is a content desirable for development, within a range that maintains a difference between development density derived from the developing density having the target content and development density derived from a developing liquid having said target content unobservable by eye.

Claim 92 (Original) The method as claimed in claim 91, further comprising storing a result of calculation output from said image density calculating means and the target density in storing means, wherein said target density stored in said storing means is updated in accordance with a plurality of results of calculation written in said storing means.

Claim 93 (Original) The method as claimed in claim 84, wherein said content sensing means comprises:

content signal outputting means and content calculating means;

said content signal outputting means comprising:

film forming means for causing the developing liquid in said liquid storing section to form a film having a thickness slope;

light emitting means for emitting light toward the film such that said light is transmitted through said film in a direction of thickness;

signal outputting means for outputting a signal representative of a quantity of light incident thereto via the film; and

shifting means for shifting a position of the film to which the light is incident in a direction of the thickness slope,

wherein said content calculating means integrates a continuous output of said signal outputting means received over a preselected period of time and calculates, based on a result

of integration, a content of the developing substance of the developing liquid stored in said liquid storing section.

Claim 94 (Original) The method as claimed in claim 93, further comprising liquid level sensing means for sensing a liquid level in said liquid storing section, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

Claim 95 (Original) The method as claimed in claim 94, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

Claim 96 (Original) The method as claimed in claim 95, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

Claim 97 (Original) The method as claimed in claim 84, further comprising liquid level sensing means for sensing a liquid level in said liquid storing section, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

Claim 98 (Original) The method as claimed in claim 97, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

Claim 99 (Original) The method as claimed in claim 98, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

Claim 100 (Original) An image forming method comprising:

- forming a latent image on an image carrier;
- forming a latent image on said image carrier using image forming means;
- storing a developing liquid consisting of a developing substance and a carrier liquid in a liquid storing section;
- depositing the developing liquid fed from said liquid storing section on a developer carrier and causing said developing liquid to deposit on the latent image to thereby develop said latent image;
- removing the developing liquid left on said image carrier after development using first cleaning means;
- conveying the developing liquid from said first cleaning means to said liquid storing section using first conveying means;
- sensing a content of the developing substance of the developing liquid stored in said liquid storing section using content sensing means;
- comparing an output of said content sensing means and a preselected target content and feeding a control agent to said liquid storing section in accordance with a result of comparison to thereby control a content of the developing substance using content controlling means; and
- calculating density of a developed image using image density calculating means, wherein a timing for starting forming the latent image on said image carrier is

determined in accordance with image density output from said image density calculating means.

Claim 101 (Original) The method as claimed in claim 100, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

Claim 102 (Original) The method as claimed in claim 100, further comprising:
transferring the developed image from said image carrier to an intermediate image transfer body and then from said intermediate image transfer body to a recording medium using transferring means;

removing the developing liquid from said image carrier after image transfer using second cleaning means; and

conveying the developing liquid from said second cleaning means to said liquid storing section using second conveying means.

Claim 103 (Original) The method as claimed in claim 102, wherein said content sensing means comprises:

content signal outputting means and content calculating means;

said content signal outputting means comprising:

film forming means for causing the developing liquid in said liquid storing section to form a film having a thickness slope;

light emitting means for emitting light toward the film such that said light is transmitted through said film in a direction of thickness;

signal outputting means for outputting a signal representative of a quantity of light

incident thereto via the film; and

shifting means for shifting a position of the film to which the light is incident in a direction of the thickness slope,

wherein said content calculating means integrates outputs of said signal outputting means received over a preselected period of time and calculates, based on a result of integration, a content of the developing substance of the developing liquid stored in said liquid storing section.

Claim 104 (Original) The method as claimed in claim 103, further comprising sensing a liquid level in said liquid storing section using liquid level sensing means, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

Claim 105 (Original) The method as claimed in claim 104, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in

the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

Claim 106 (Original) The method as claimed in claim 105, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.

Claim 107 (Original) The method as claimed in claim 100, wherein said content sensing means comprises:

content signal outputting means and content calculating means;

said content signal outputting means comprising:

film forming means for causing the developing liquid in said liquid storing section to form a film having a thickness slope;

light emitting means for emitting light toward the film such that said light is transmitted through said film in a direction of thickness;

signal outputting means for outputting a signal representative of a quantity of light incident thereto via the film; and

shifting means for shifting a position of the film to which the light is incident in a direction of the thickness slope,

wherein said content calculating means integrates outputs of said signal outputting means received over a preselected period of time and calculates, based on a result of integration, a content of the developing substance of the developing liquid stored in said liquid storing section.

Claim 108 (Original) The method as claimed in claim 107, further comprising liquid level sensing means for sensing a liquid level in said liquid storing section, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

Claim 109 (Original) The method as claimed in claim 108, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

Claim 110 (Original) The method as claimed in claim 109, wherein the developing liquid has the developing substance dispersed in a content of between 5 % and 40 % and has

viscosity of between 100 mPa·s and 10,000 mPa·s.

Claim 111 (Original) The method as claimed in claim 100, further comprising sensing a liquid level in said liquid storing section using liquid level sensing means, wherein the control agent is fed to said liquid storing section in accordance with an output of said liquid level sensing means.

Claim 112 (Original) The method as claimed in claim 111, wherein said liquid level sensing means comprises:

a magnetic force generating member;

magnetic force sensing means for sensing a magnetic force of said magnetic force generating member;

floats movable in an up-and-down direction in accordance with the liquid level in said liquid storing section;

an elongate, ring support member supporting said floats at opposite ends thereof, supporting either one of said magnetic force generating member and said magnetic force sensing means at a position intermediate between said opposite ends, and supporting rings between said position and said opposite ends; and

a plurality of guide rods respectively inserted in said rings for guiding said floats in the up-and-down direction,

wherein a distance between said magnetic force generating member and said magnetic force sensing means varies in accordance with a movement of said floats, allowing the liquid level to be determined on the basis of an output of said magnetic force sensing means.

Claim 113 (Original) The method as claimed in claim 112, wherein the developing

liquid has the developing substance dispersed in a content of between 5 % and 40 % and has viscosity of between 100 mPa·s and 10,000 mPa·s.